

GPC40 GLOBAL PERFORMANCE SWITCHERS



SPECIFICATIONS:

AC Input

85-264Vac, 47-63Hz single phase.

Input Current

Maximum input current at 120Vac, 60Hz with full rated output load: 1.3A

Hold-Up Time

20mSec minimum from loss of AC input at full load, nominal line (115Vac).

Output Power

40W continuous, 50W peak. Peak ratings are for 60 sec. maximum duration, 10% duty cycle. During peak load condition, output regulation may exceed total regulation limits.

Overload Protection

Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit on outputs 1 & 2; foldback type on output 3. Recovery after fault is automatic. See output ratings chart for additional notes or conditions.

Overvoltage Protection

Main outputs: 124% $\pm$ 12%

Efficiency

70% at full rated load, nominal input voltage, depending on model and load distribution.

Turn-on Time

Less than 1 second at 120Vac, 25°C (inversely proportional to input voltage and thermistor temperature).

Input Protection

Internal AC fuse provided. Designed to blow only if a catastrophic failure occurs in the unit.

Inrush Current

Inrush is limited by internal thermistors. Inrush at 240Vac under cold start conditions will not exceed 34A.

Temperature Coefficient

0.03%/°C typical on all outputs.

Environmental

Designed for 0 to 50°C operation at full rated output power; derate output current and total output power by 2.5% per °C above 50°C. See Environmental and Packaging Specifications (p. 11) for additional information.

No-Load Turn-on/Standby

No degradation of reliability will occur.

Output Noise

0.5% RMS, 1% Pk-Pk, 20MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of the power supply.

Transient Response

Main output—500 μ Sec typical response time for return to within 0.5% of

FEATURES:

- Wide-range AC input 85-264VAC
- 2-year warranty
- Approved to UL1950, IEC950, EN60950 and CSA22.2-234 L3
- Exceeds FCC and CISPR22 Class B conducted emissions requirements
- Single and multiple outputs
- For medical version, see p. 86
- **CE** marked to LVD

final value for a 50% load step change. $\Delta i/\Delta t < 0.2A/\mu$ Sec. Maximum voltage deviation is 3.5%. Startup/shutdown overshoot less than 3%.

Remote Sense

Provided as a standard feature on single-output models.

Voltage Adjustment

Built-in potentiometer adjusts main output voltage $\pm 5\%$.

Reverse Voltage Protection

All outputs protected against inadvertent application of reverse voltage up to 1 times rated current of the reverse output.

Overload Protection

Factory set to begin power limiting at approximately 55W (lower on GPC40-3.3 and GPC40-5).

EMI/EMC Compliance

All models include built-in EMI filtering to meet the following emissions requirements:

EMI SPECIFICATIONS

Conducted Emissions

Static Discharge

RF Field Susceptibility

Fast Transients/Bursts

Surge Susceptibility

COMPLIANCE LEVEL

EN55022 Class B; FCC Class B

EN61000-4-2, 6 kV contact, 8 kV air

EN61000-4-3, 3 V/meter

EN61000-4-4, 2 kV, 5 kHz

EN61000-4-5, 1 kV diff., 2 kV com.

Leakage Current

0.7mA. 254Vac @ 60Hz input.

Safety

Approved to UL1950, CSA22.2 No. 234 Level 3, IEC950, EN60950. UL file #E135803 commercial; CSA #LR46516 all models. The output(s) are intended for safety earthed Signal Output and Intermediate Circuits only. All DC outputs are SELV under normal and single fault conditions.

Model	Output No.	Output	Output Minimum	Output Maximum	Output Peak	Noise P-P	Total Regulation (A)	Notes
GPC40A	1	+5.1V	0.4A	4A	5A	50mV	2%	
	2	+12V	0A	2A	3A	120mV	5%	B,C
	3	-12V	0A	0.4A	0.7A	120mV	3%	C
GPC40B	1	+5.1V	0.4A	4A	5A	50mV	2%	
	2	+15V	0A	2A	3A	150mV	5%	B,C
	3	-15V	0A	0.4A	0.7A	150mV	3%	C
GPC40D	1	+5.1V	0.4A	4A	5A	50mV	2%	
	2	+24V	0A	1A	1.5A	240mV	5%	B,C
	3	-12V	0A	0.4A	0.7A	120mV	3%	C
GPC40-3.3	1	3.3V	0A	8A	10A	35mV	2%	
GPC40-5	1	5V	0A	8A	10A	50mV	2%	
GPC40-9	1	9V	0A	4.5A	6A	90mV	2%	
GPC40-12	1	12V	0A	3.3A	4.2A	120mV	2%	
GPC40-15	1	15V	0A	2.7A	3.3A	150mV	2%	
GPC40-24	1	24V	0A	1.7A	2.1A	240mV	2%	
GPC40-28	1	28V	0A	1.4A	1.8A	280mV	2%	

A. Total regulation is defined as the maximum deviation from the nominal voltage for all steady-state conditions of initial voltage setting, input line voltage and output load.

B. To maintain these regulation conditions, the 5.1V current must be at least 1/4 of V2 and not greater than 5 times the V2 current.

C. Requires +5.1V to be adjusted within $\pm 1\%$ with at least a 0.4A load to maintain regulation on this output.

GPC40 MECHANICAL SPECIFICATIONS:

J1 CONNECTOR: AMP P/N 640445-3, W/CENTER PIN REMOVED
0.156 [3.96mm] CTR HEADER

J2 CONNECTOR: AMP P/N 640445-
0.156 [3.96mm] CTR HEADER

GND 0.250 FASTON TAB

INPUT: J1

PIN 1) AC LINE

PIN 2) AC NEUTRAL

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OUTPUT:

J2	MULTIPLE OUTPUT MODELS	SINGLE OUTPUT MODELS
PIN 1)	OUTPUT #2	OUTPUT #1
PIN 2)	OUTPUT #1	OUTPUT #1
PIN 3)	OUTPUT #1	OUTPUT #1
PIN 4)	COMMON	COMMON
PIN 5)	COMMON	COMMON
PIN 6)	OUTPUT #3	COMMON

J3 REMOTE SENSE (SINGLE OUTPUT MODELS ONLY)

AMP P/N 640456-2 0.100 [2.54mm] CTR HEADER

MATING CONNECTORS AMP P/N

	HOUSING	CONTACT
INPUT	640250-3	770522-1
OUTPUT	640250-6	770522-1

NOTE: 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN

WEIGHT: 1.0 LBS MAX. [0.45 kg MAX.] TOLERANCES: X.XX=0.030
X.XXX=0.010 [0.25mm]

OPTION: ENCLOSURE (P/N 08-30466-1040)

